

ABSTRACT

The invention contemplates an electrical power meter and method of operating the electrical power meter. The inventive power meter includes a power supply for converting alternating current (AC) voltage to a direct current (DC) voltage for powering the electronic components, and an optical diode in series with the power supply. The meter may also include an optical communications port in communication with the optical diode and/or a switch (*e.g.*, a transistor) in communication with the optical diode. The switch may be in parallel with the optical diode, and allow DC current to bypass the optical diode when a request for communication is received by the meter. The DC current provided to the optical diode represents communication of data with an optical communications port. The switch may be controlled by a microprocessor device.